

AMENDMENTS TO THE SPECIFICATION

Amend the specification by inserting before the first line the sentence:

This is a continuation of Application No. 09/385,443 filed August 30, 1999; the disclosure of which is incorporated herein by reference.

Please replace last paragraph at page 2 with the following rewritten paragraph:

The photo-conversion type solid radiation detectors are disclosed, for instance, in Japanese Unexamined Patent Publication Nos. 59(1984)-211263 and 2(1990)-164067, PCT International Publication no. WO92/06501, "Signal, noise, and read out considerations in the development of amorphous silicon photodiode arrays for radiography and diagnostic x-ray imaging", L.E. Antonuk et et. al., University of Michigan, R.A. ~~street~~ Street Xerox, PARC, SPIE vol. 1443, "Medical Imaging V", Image Physics(1991), pp. 108-119, and the like.

Please replace paragraph beginning at page 14, line 10 with the following rewritten paragraph:

~~Figure 1~~ The sole figure is a schematic cross-sectional view of the radiation image detecting system in accordance with an embodiment of the invention where a direct conversion type solid radiation detector is employed.

Please replace paragraph beginning at page 14, line 15 with the following rewritten paragraph:

A radiation image detecting system 30 in accordance with an embodiment of the present invention where a direct conversion type solid radiation detector is employed will be described with reference to ~~Figure 1~~ the sole figure, hereinbelow.

Please replace the paragraph bridging pages 17-18 with the following rewritten paragraph:

The material and/or thickness of the phosphor layer 36 is selected so that aliasing noise due to the high frequency components of the image information not lower than a Nyquist frequency, which is defined by the pitches of the array of the charge collection electrodes 32a, becomes not stronger than 30% of intrinsic noise power at a frequency equal to the half of the Nyquist frequency, the intrinsic noise power being the power which the aliasing noise would have but for the phosphor layer 36. Accordingly, in this embodiment, the aliasing noise ~~included~~ included in the image signal is reduced and a high quality image less in the aliasing noise can be obtained. In this particular embodiment, the radiation-conductive material layer 31 is formed of phosphor including as a major component amorphous selenium (a-Se) and is about 400 μ m in thickness, the phosphor layer comprises phosphor including Gd₂O₂S:Tb as a major component and is about 100 μ m in thickness, and the pitches of the array of the charge collection electrodes 32a are 200 μ m. In this case, the aliasing noise due to the high frequency components of the image information not lower than the Nyquist frequency can be attenuated not stronger than 20% of the intrinsic noise power at a frequency of 1.25 cycle/mm which is equal to the half of the Nyquist frequency.

Please replace the paragraph bridging pages 19 and 20 with the following rewritten paragraph:

Though, in the embodiment described above, the phosphor layer 36 is employed as the high frequency component attenuation means, the high frequency component attenuation means

need not be limited to the phosphor layer but may be of any form so long as it can attenuate the high frequency components so that the aliasing noise due to the high frequency components of the image information not lower than the Nyquist frequency becomes not stronger than 30% of the intrinsic noise power at a frequency equal to a half of the Nyquist frequency. For example, the high frequency component means may attenuate the high frequency components physically, chemically, optically, electrically, or magnetically. In the case where the high frequency component attenuation means attenuates the high frequency components physically or chemically, the attenuation may be realized by adjusting the material or the ~~thickness~~ thickness of the recording photoconductive layer and/or the radiation-conductive layer. In the case where the frequency component attenuation means attenuates the high frequency components optically, the attenuation may be realized by once converting the radiations to visible light. In the case where the high frequency component attenuation means attenuates the high frequency components electrically, the attenuation may be realized by controlling the electric field applied to the recording photoconductive layer and the radiation-conductive layer, and in the case where the high frequency component attenuation means attenuates the high frequency components magnetically, the attenuation may be realized by applying a magnetic field to the recording photoconductive layer and the radiation-conductive layer.